What is claimed is:

5

10

15

20

25

30

- 1. A sample holder for laser desorption/ionization mass spectrometry, which loads a sample to be analyzed using laser desorption/ionization mass spectrometry, the sample holder comprising:
 - a metal plate; and

a thin layer, which is formed on the metal plate and into which the sample is loaded,

wherein the thin layer is formed of a carbon-based material.

- 2. The sample holder of claim 1, wherein the thin layer is formed of carbon.
 - 3. The sample holder of claim 1, wherein the thin layer is formed of graphite.
 - 4. The sample holder of claim 1, wherein the thin layer is formed on the metal layer to have a thickness of several or dozens of micrometers.
- 5. The sample holder of claim 1, wherein the metal plate is formed of one of stainless steel and gold-coated steel.
 - 6. A method of manufacturing a sample holder for laser desorption/ionization mass spectrometry, the sample holder loading a sample to be analyzed using laser desorption/ionization mass spectrometry, the method comprising:

preparing a metal plate; and depositing a carbon layer on the metal plate through sputtering.

- 7. The method of claim 6, wherein the carbon layer is deposited on the metal plate by arc-discharging a carbon rod and sputtering carbon atoms onto the metal plate.
- 8. The method of claim 6, wherein the carbon layer is formed on the metal plate to have a thickness of several or dozens of micrometers.

9. A method of manufacturing a sample holder for laser desorption/ionization mass spectrometry, the sample holder loading a sample to be analyzed using laser desorption/ionization mass spectrometry, the method comprising:

forming a carbon paste by mixing carbon powder with a solvent, then coating a surface of the metal plate with the carbon paste; and

forming a carbon layer on the metal plate by drying the carbon paste.

- 10. The method of claim 9, wherein the solvent is a volatile solvent and vaporizes when drying the carbon paste.
- 11. The method of claim 9, wherein the carbon layer is formed on the metal plate to have a thickness of several or dozens of micrometers.
- 12. The method of claim 9, wherein the metal plate is manufactured by cutting a stainless steel plate with a predetermined thickness into pieces.
- 13. A method of manufacturing a sample holder for laser desorption/ionization mass spectrometry, the sample holder loading a sample to be analyzed using laser desorption/ionization mass spectrometry, the method comprising:

forming a graphite paste by mixing graphite powder with a solvent, then coating a surface of the metal plate with the graphite paste; and

forming a graphite layer on the metal plate by drying the graphite paste.

- 14. The method of claim 13, wherein the solvent is a volatile solvent and vaporizes when drying the graphite paste.
- 15. The method of claim 13, wherein the graphite layer is formed on the metal plate to have a thickness of several or dozens of micrometers.
- 16. The method of claim 13, wherein the metal plate is manufactured by cutting a stainless steel plate with a predetermined thickness into pieces.

5

10

15

20

25

30